AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1.   (Currently Amended) A protocol diagnostic system, comprising:

a data stream monitor component that accesses raw network data and copies at least one protocol specific subset of the raw network data; ~~and~~

a diagnostics engine comprising at least one protocol state compressor that analyzes the at least one protocol specific subset of the raw network data, the protocol specific subset of raw network data being correlated with the protocol state compressor, the diagnostics engine determines condition of network connectivity, and the data stream monitor component utilizes at least one lexical rule set associated with the at least one protocol state compressor to determine subsets of the raw network data to copy, the at least one lexical rule set stores at least one of information regarding structure of subsets of the raw network data and protocol specific information, and

where the diagnostic engine, upon initialization, stores information associated with protocols to be monitored in the at least one lexical rule set, upon occurrence of a network connectivity problem, stores information associated with additional protocols, and upon correction of the network problem, deletes information associated with selected protocols from the at least one lexical rule set.

2.   (Canceled)

3.   (Original) The protocol diagnostic system of claim 1, the diagnostics engine further comprising at least one lexical rule set.

4.   (Currently Amended) A method that facilitates network diagnostics, comprising:

accessing raw real-time network data;

selectively providing subsets of the raw real-time network data to protocol state compressors based at least in part upon lexical rule sets corresponding to the protocol state compressors, the lexical rule sets store at least one of information regarding structure of subsets of the raw real-time network data and protocol specific information;

storing and deleting information associated with protocols to be monitored in the lexical rule sets, where upon occurrence of a network connectivity problem, information associated with additional protocols is stored, and upon correction of the network problem, the information associated with the additional protocols is deleted from the lexical rule sets;

using the protocol state compressors to analyze the respective data subsets; and

diagnosing health status of a system based at least in part upon the analysis of at least one of the protocol state compressors.

5.   (Canceled)

6.   (Original) The method of claim 4, further comprising at least one of the following acts:

diagnosing a network connectivity problem based at least in part upon the analysis of at least one of the protocol state compressors; and

initiating corrective action associated with the network connectivity problem.

7.   (Original) The method of claim 4, further comprising at least one of the following acts:

storing information associated with the health status of the system; and

providing information to a user regarding the health status of the system.

8.   (Currently Amended) A computer network diagnostic system, comprising:

a data stream monitor/multiplex component that accesses real-time network data, selectively determines at least one subset of the real-time network data to multiplex based at least in part upon at least one lexical rule set;

a data stream distribution engine that demultiplexes the multiplexed data based at least in part upon the at least one lexical rule set; and,

a diagnostics engine having a plurality of protocol state compressors, the protocol state compressor being associated with the at least one lexical rule set, the protocol state compressors analyzing their respective subsets of demultiplexed data received from the data stream distribution engine, the diagnostics engine further including an event correlator/inference engine receives results of the analysis of the plurality of protocol state compressors, the event correlator/inference engine correlates the results to detect a system problem; and

where the diagnostic engine, upon occurrence of a network connectivity problem, stores information associated with additional protocols, and upon correction of the network problem, deletes information associated with the additional protocols from the at least one lexical rule set.

9.   (Previously Presented) The protocol diagnostic system of claim 8, the event correlator/inference engine diagnoses a potential source of the system problem.

10.   (Previously Presented) The protocol diagnostic system of claim 9, the event correlator/inference engine initiates corrective action related to the system problem.

11.   (Original) The protocol diagnostic system of claim 9, the event correlator/inference engine utilizing at least one of a neural network and an expert system to facilitate diagnosis of the potential source of the system problem.

12.   (Original) The protocol diagnostic system of claim 8, the diagnostics engine further comprising the at least one lexical rule set.

13.   (Currently Amended) A method that facilitates network diagnostics, comprising:

accessing at least one lexical rule set coinciding with a protocol to be monitored by a corresponding protocol state compressor;

storing and deleting information associated with protocols to be monitored in the at least one lexical rule set, where upon occurrence of a network connectivity problem, information associated with additional protocols is stored, and upon correction of the network problem, the information associated with the additional protocols is deleted from the at least one lexical rule set;

copying raw data frames coinciding with the at lexical rule set;

multiplexing the copied raw data frames;

demultiplexing the copied raw data frames;

providing the copied raw data frames to the protocol state compressor;

using the protocol state compressor to analyze corresponding raw data frames utilizing at least in part upon the corresponding lexical rule set; and

correlating information received from the protocol state compressor to facilitate diagnosis of health status of a system.

14.   (Original) The method of claim 13, further comprising at least one of the following acts:

determining whether an additional protocol to be monitored has been added; and

adding a protocol state compressor and corresponding lexical rule set associated with the additional protocol.

15.   (Original) The method of claim 13, further comprising at least one of the following acts:

initiating corrective action based at least in part upon the correlated information; and

providing information to a user regarding the health status of network connectivity.

16.   (Original) The method of claim 13, further comprising at least one of the following acts:

storing historical information regarding the health status of network connectivity;

determining potential sources of a problem associated with network connectivity;

accessing historical information regarding the health status of network connectivity;

calculating a probability of utility based at least in part upon the potential sources of the problem and accessed historical information; and,

consecutively initiating corrective action based at least in part upon the probability of utility.

17.   (Currently Amended) A diagnostic engine for a server of a computer system, comprising:

a plain language notification data information store storing plain language notification information associated with a plurality of potential server problems;

a protocol specific event information data store storing information associated with server health status; ~~and,~~

at least one lexical rule set that stores information regarding structure of subsets of data and protocol specific information, where upon occurrence of a network connectivity problem, information associated with additional protocols is stored, and upon correction of the network problem, information associated with the additional protocols is deleted from the at least one lexical rule set; and

a self healing component that analyzes information stored in the protocol specific event information to determine at least one of appropriate corrective action and appropriate plain language notification, the plain language notification based at least in part upon information stored in the plain language notification data store.

18.   (Currently Amended) A data packet adapted to be received by a self-healing component, the data packet comprising:

a protocol specific identifier; ~~and,~~

at least one lexical rule set that stores information regarding structure of subsets of data and protocol specific information, where upon occurrence of a network connectivity problem, information associated with additional protocols is stored, and upon correction of the network problem, information associated with the additional protocols is deleted from the at least one lexical rule set; and

protocol specific event data associated with at least one of a network problem and network status, the protocol specific event data being employed by the self-healing component to facilitate at least one of appropriate corrective action and appropriate plain language notification.

19.   (Currently Amended) A computer readable medium having computer usable components for a protocol diagnostics engine, comprising:

at least one protocol state compressors, the protocol state compressor being associated with at least one ~~of~~ lexical rule set, the protocol state compressor analyzing respective subsets of demultiplexed data received from the data stream distribution engine, where the diagnostic engine, upon initialization, stores information associated with protocols to be monitored in the at least one lexical rule set, the diagnostic engine, upon occurrence of a network connectivity problem, stores information associated with additional protocols, and the diagnostic engine, upon correction of the network problem, deletes information associated with selected protocols from the at least one lexical rule set; and,

an event correlator/inference engine that receives results of the analysis of the protocol state compressor, the event correlator/inference engine correlates the results to detect a system problem.

20.   (Currently Amended) A protocol diagnostic system, comprising:

means for real-time accessing of network data;

means for copying a subset of the network data based at least in part upon lexical rule sets, the lexical rule sets storing at least one of information regarding structure of the subset of network data and protocol specific information; ~~and~~

means for storing and deleting information associated with protocols to be monitored in the lexical rule sets, where upon occurrence of a network connectivity problem, information associated with additional protocols is stored, and upon correction of the network problem, the information associated with the additional protocols is deleted from the lexical rule sets; and

means for analyzing the subset of network data, the analysis facilitating determining network status.